

Date: Monday, 03/11/2008 1:30:45 PM  
 User: Julie Dawson

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services			Drawing Name	: FRAME WELDMENT		
Job Number	: 43166			Part Number	: D3330041		
Estimate Number	: 11202			Drawing Number	: D3330 REV D		
P.O. Number	:			Project Number	: N/A		
This Issue	: 03/11/2008 S.O. No. :			Drawing Revision	: D		
Prsht Rev.	: NC			Material	:		
First Issue	: / / Type : LARGE FAB ASSY			Due Date	: 20/11/2008 Qty: 2 Um: Each		
Previous Run	: 39446						
Written By	:						
Checked & Approved By	: JUD 08.11.03						
Comment	: Est. A05.01.13 New Issue KJ/JLM est B 07.05.14 revC dwg ec Est C 07.12.19 Rev D ecn1085 EC						

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	D33301	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	
		Panel	
		Pick:	
X		Qty Part Number Description Batch	
		1 D3330-1 Panel B35482 →	
2.0	D33302	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	
		Panel	
		Pick:	
		Qty Part Number Description Batch	
		1 D3330-2 Panel B35486 B39519 →	
3.0	D33303	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	
		Panel	
		Pick:	
		Qty Part Number Description Batch	
		1 D3330-3 Panel B37442 .	
4.0	D33305	Panel	
		Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)	
		Rail	
		Pick:	
		Qty Part Number Description Batch	
		1 D3330-4 Panel B36011 B37650	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 03/11/2008 1:30:45 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 43166

Part Number: D3330041

Job Number:



Seq. #:	Machine Or Operation:	Description :
1	D3330-5	Panel
5.0	D33307	Panel

Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Panel

Pick:

Qty	Part Number	Description	Batch
1	D3330-7	Panel	B37081

*PL08.11.17*

6.0 D33309 Top Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Top Plate

Pick:

Qty	Part Number	Description	Batch
1	D3330-9	Panel	B35488

*PL08.11.17*

7.0 D333011 Long Pin Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Long Pin Bracket

Pick:

Qty	Part Number	Description	Batch
1	D3330-11	Long Pin Bracket	B39321

*PL08.11.17*

8.0 D333013 Short Pin Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Short Pin Bracket

Pick:

Qty	Part Number	Description	Batch
1	D3330-13	Short Pin Bracket	B37079

*PL08.11.17*

9.0 D333015 Handle



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle

Pick:

Qty	Part Number	Description	Batch
1	D3330-15	Handle	B37080 → 1 B43335 →

*PL08.11.17*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 03/11/2008 1:30:45 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 43166

Part Number: D3330041

Job Number:



Seq. #: Machine Or Operation:

Description :

10.0 D333017 Handle Socket



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle Socket

Pick:

Qty Part Number Description Batch  
1 D3330-17 Handle Socket B39460

*PL 08.11.17*

11.0 D333019 Handle Rim



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Handle Rim

Pick:

Qty Part Number Description Batch  
1 D3330-19 Handle Rim B35485

*PL 08.11.17*

12.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Assemble and Weld as per Dwg Dwg D3330 using D3330-041T1

Identify as D3330-041

*PL 08.11.17*

13.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION



*Mos 11/18 Q*

14.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*Saslius X*

15.0 POWDER COATING POWDER COATING



*QX*

*M180 SO*

Comment: POWDER COATING

Powder Coat Fire Red (Ref: 4.3.5.10) as per QSI 005 4.3

*1=20 OF*

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

*320 1=30*

*M 1 08/11/18*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 03/11/2008 1:30:45 PM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: FRAME WELDMENT

Job Number: 43166

Part Number: D3330041

Job Number:

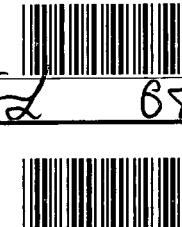


Seq. #: Machine Or Operation:

Description :

16.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



(2)

Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FZ 08/11/18

17.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: up

Po 08/11/18

18.0 QC21

FINAL INSPECTION/W/O RELEASE



08/11/2008

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



MF 08-11-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

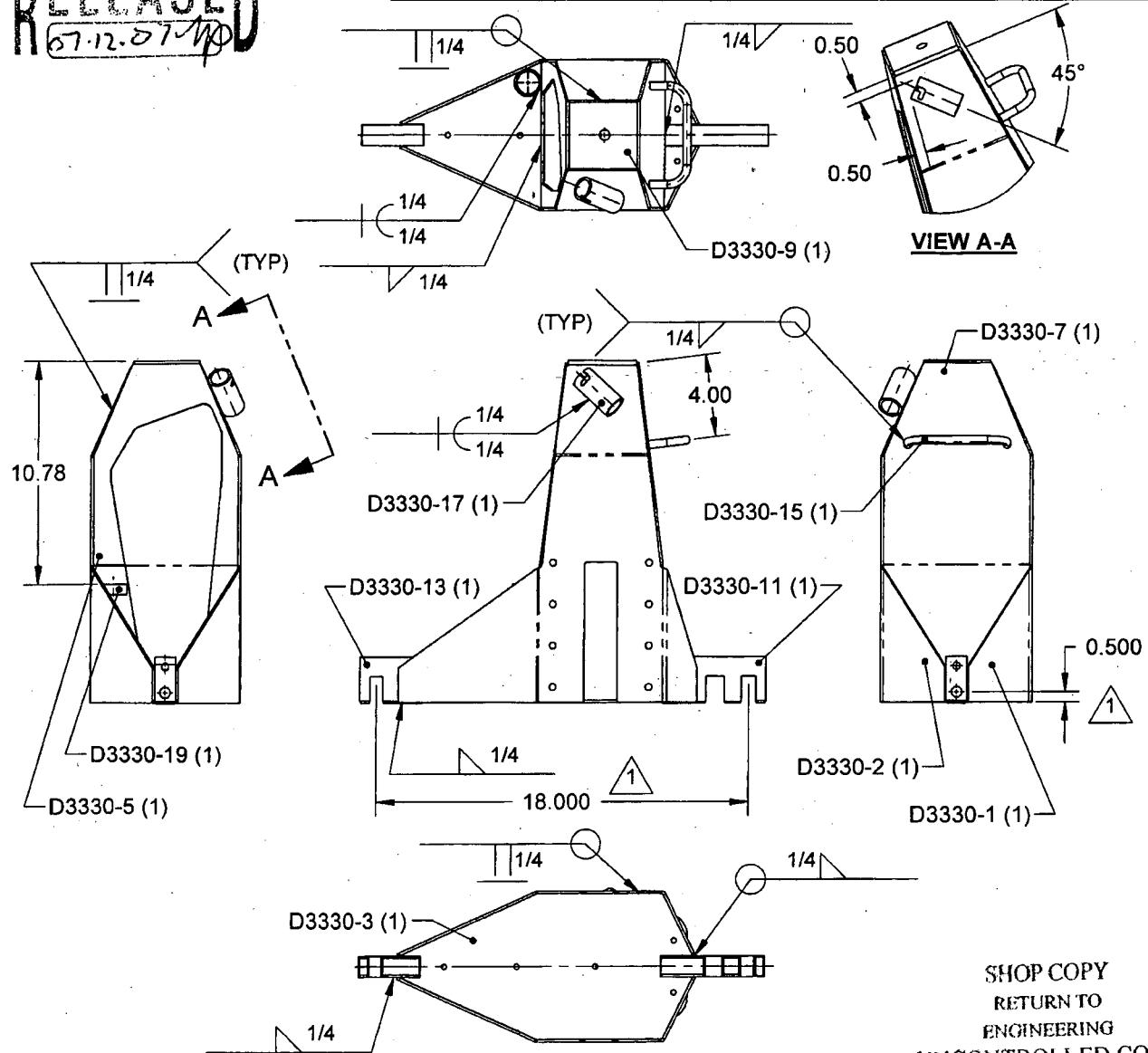
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**

DESIGN 13	DRAWN BY DC	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 13	APPROVED NW	DRAWING NO. D3330	REV. D SHEET 1 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:8
REV	DATE	DESCRIPTION	
A	04.12.16	NEW ISSUE	
B	05.02.26	RE-DESIGN	
C	07.03.20	ADD 0.100 DIM; RAISED BEND OF -1/2 BY 0.125	
D	07.12.06	CHANGE DIMS ON D3330-9	

**RELEASED**  
R 67-12-07140**D3330-041 FRAME WELDMENT****NOTES:**

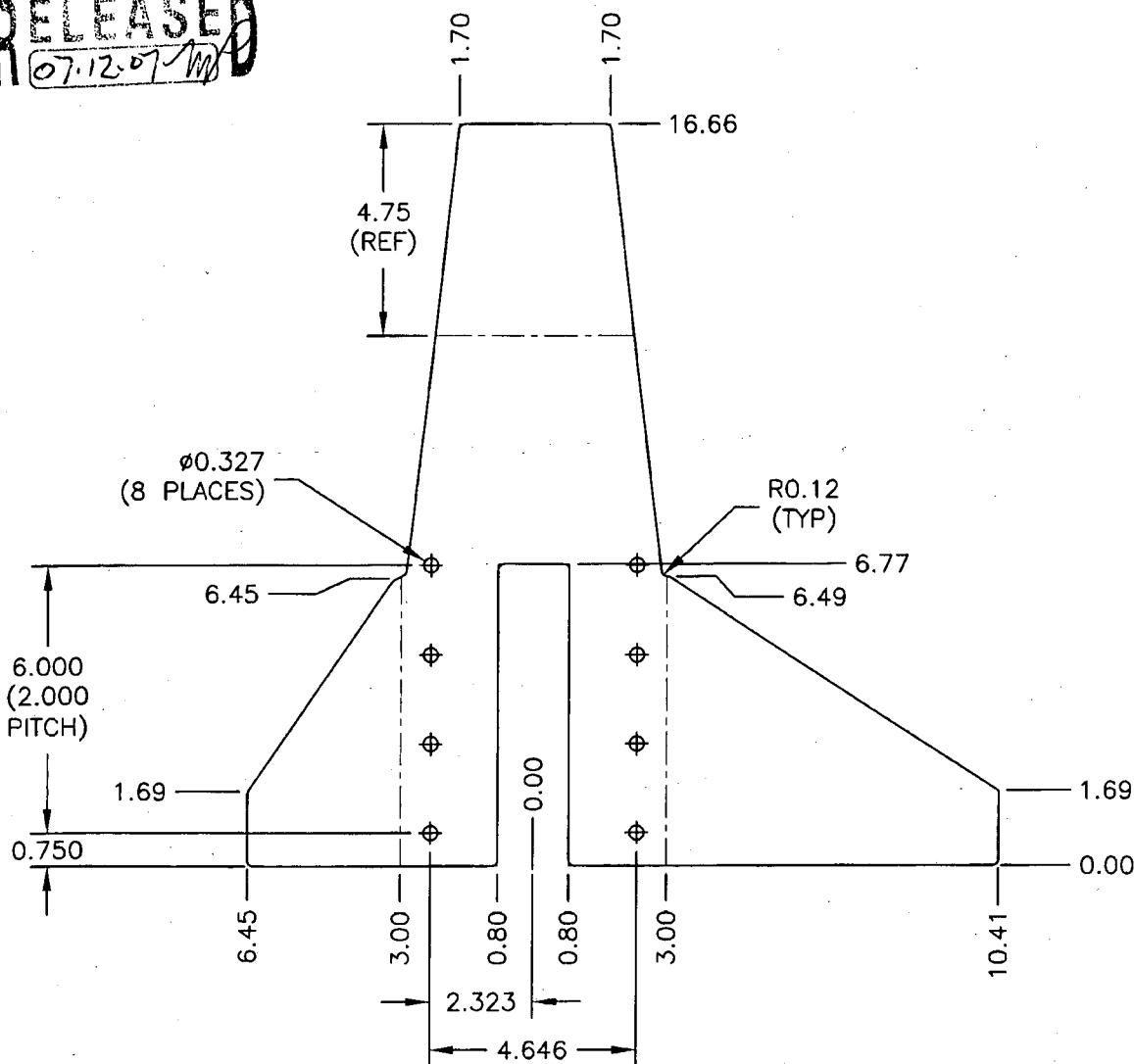
- 1) POSITION PARTS AS PER JIG D3330-041T1
- 2) WELD PER QSI 004
- 3) FINISH: POWDER COAT PAINT FIRE RED (4.3.5.10) PER DART QSI 005 4.3
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.010 TO 0.020

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WITHOUT NOTICE  
WORK ORDER  
NO. 63100



DESIGN <i>b</i>	DRAWN BY <i>dc</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHECKED <i>ls</i>	APPROVED <i>W</i>	DRAWING NO. D3330	REV. D	SHEET 2 OF 9
DATE 07.12.06	TITLE FRAME WELDMENT		SCALE 1:4	

RELEASED  
07.12.07 MP



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D3330-1 PANEL

NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21,  
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

**DART**

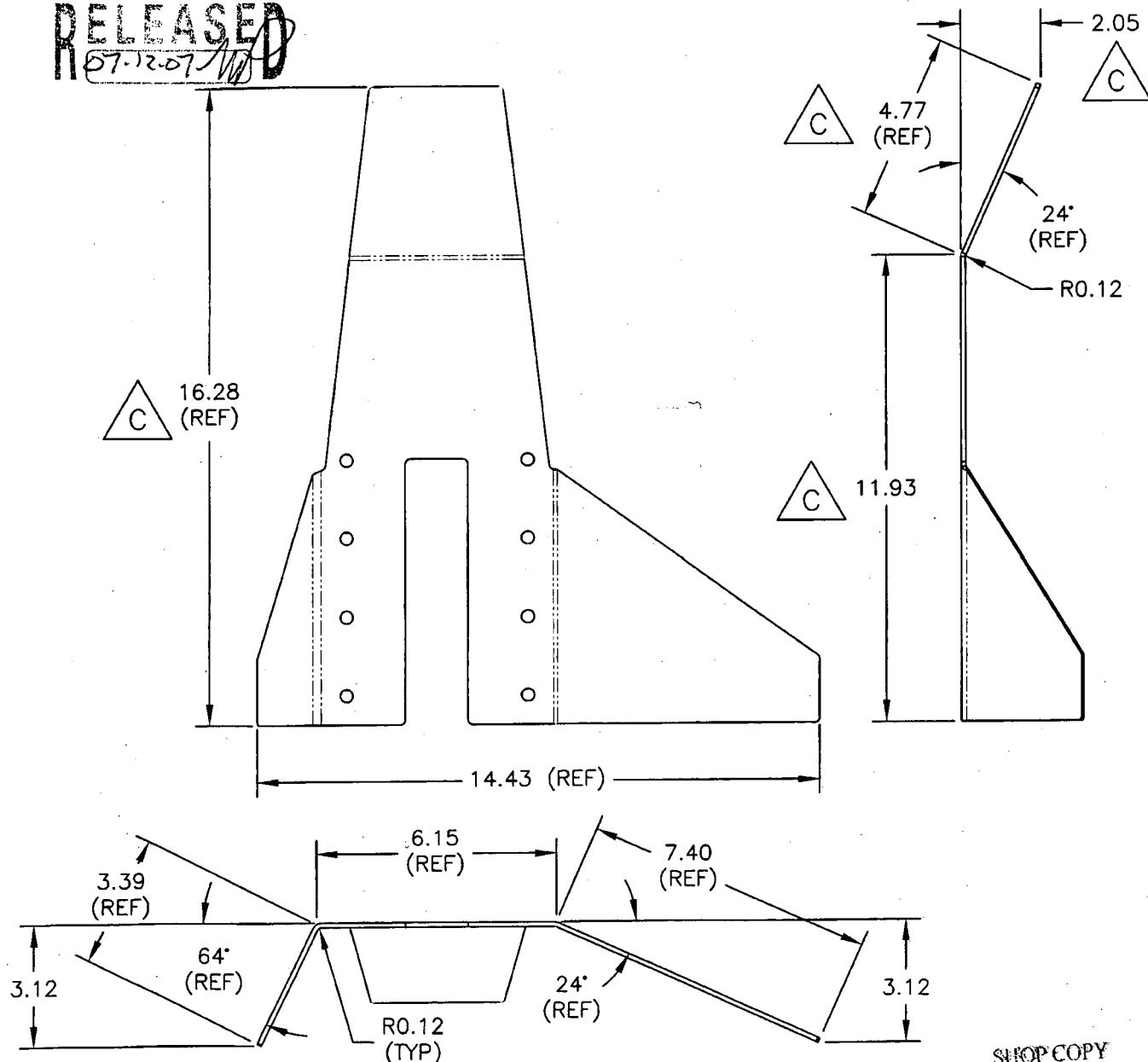
DESIGN 13	DRAWN BY <i>SC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED <i>BB</i>	APPROVED <i>MP</i>	DRAWING NO. D3330
DATE 07.12.06		TITLE FRAME WELDMENT

REV. D

SHEET 3 OF 9

SCALE

1:4

**RELEASED**  
07.12.07 *WD***D3330-1 BEND DETAIL (SHOWN)**

BEND D3330-2 (OPPOSITE)

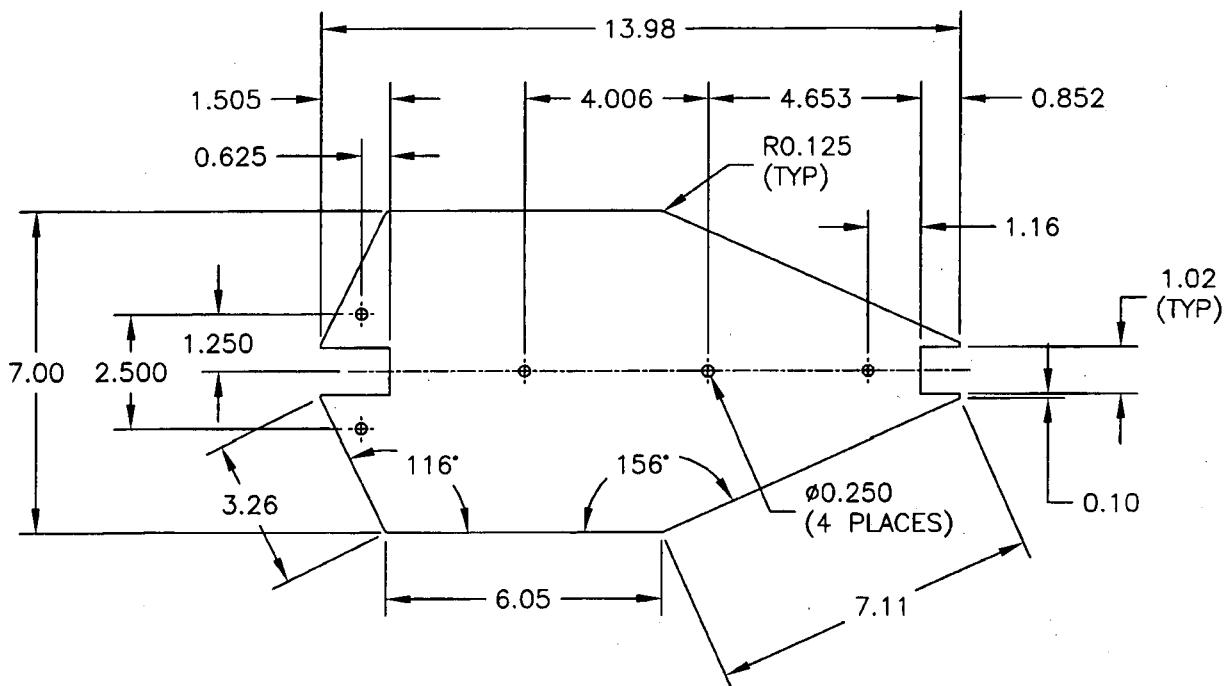
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W/ MARY ORDER  
NO. *43166*

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CHECKED <i>BS</i>	APPROVED <i>MP</i>	DRAWING NO. D3330	REV. D SHEET 4 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

**RELEASED**  
07.12.06**D3330-3 PLATE**

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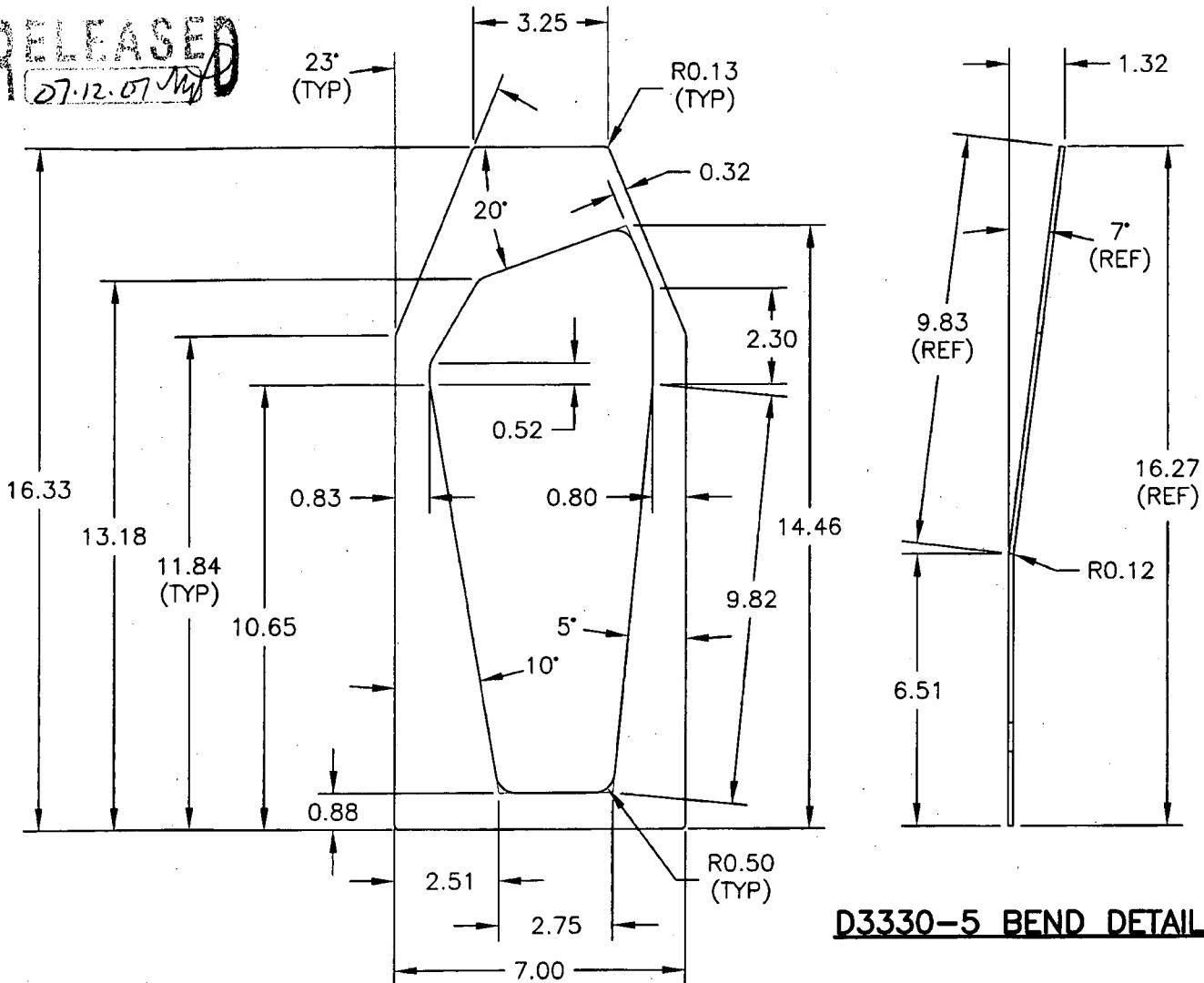
WORK ORDER

NO. *43109*NOTES:

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK) WITHOUT NOTICE
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

**DART**

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>J</i>	APPROVED <i>M</i>	DRAWING NO. D3330	REV. D SHEET 5 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:4

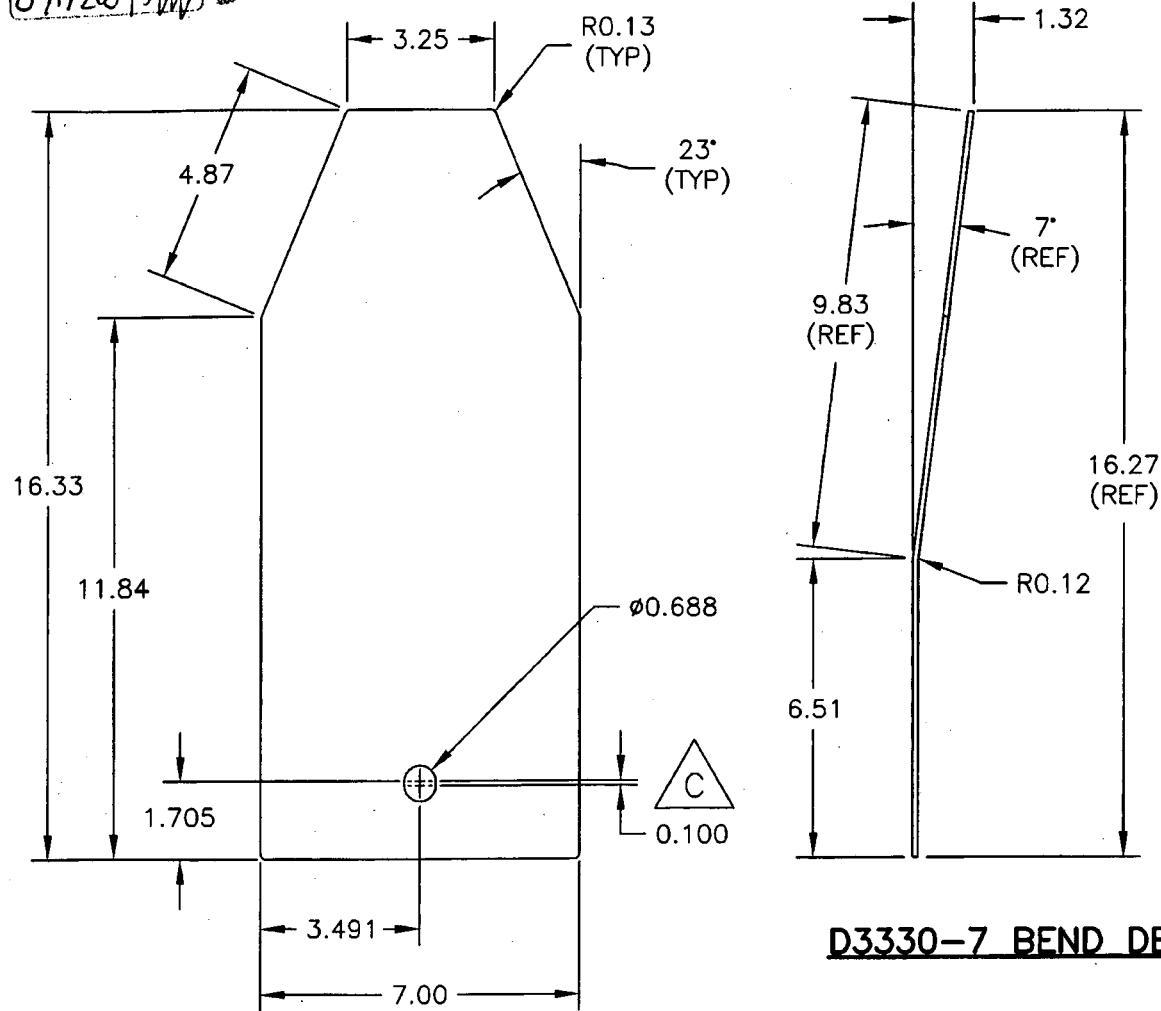
**RELEASED**  
07.12.07 *MW***FLAT PATTERN**SHOP COPY  
RETURN TO  
ENGINEERING**NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, UNCONTROLLED COPY  
38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK) SUBJECT TO AMENDMENT
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

WITHOUT NOTICE  
WORK ORDER  
NO. *4306*

**DART**

DESIGN <i>AB</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>JL</i>	APPROVED <i>MM</i>	DRAWING NO. D3330	REV. D SHEET 6 OF 9
DATE 07.12.06		TITLE FRAME ASSEMBLY	SCALE 1:4

**RELEASED**  
(07.12.07)**D3330-7 BEND DETAIL****FLAT PATTERN****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008 OR CSA G40-21, 38W/44W/50W/60W/70W SERIES STEEL 11 GAUGE (0.125 THICK) UNCONTROLLED COPY
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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ENGINEERING

SUBJECT TO AMENDMENT

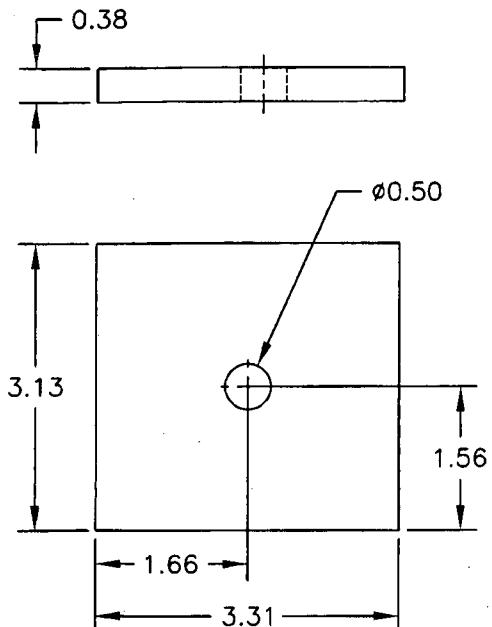
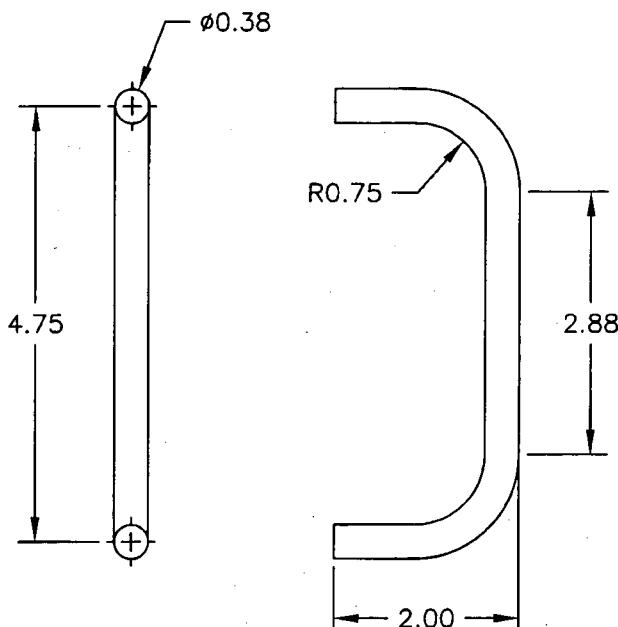
WITHOUT NOTICE

WORK ORDER

NO. 43166

**DART**

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>JM</i>	APPROVED <i>JM</i>	DRAWING NO. D3330	REV. D SHEET 7 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:2

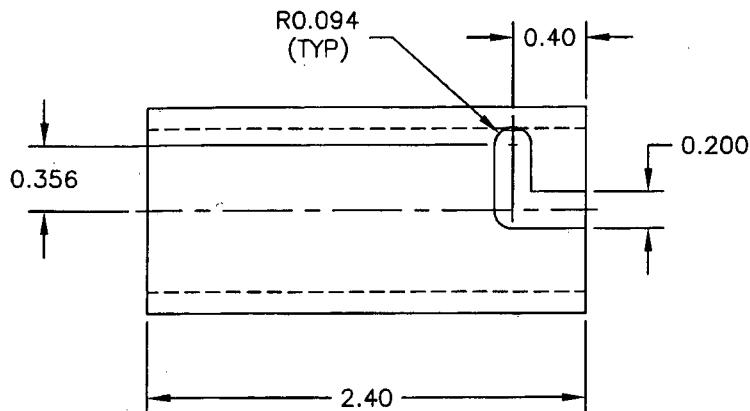
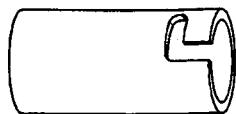
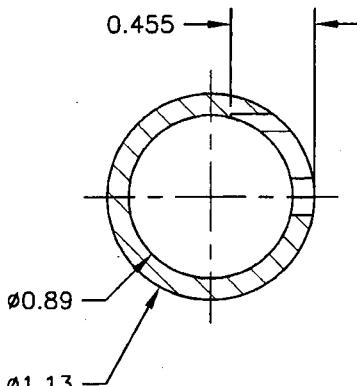
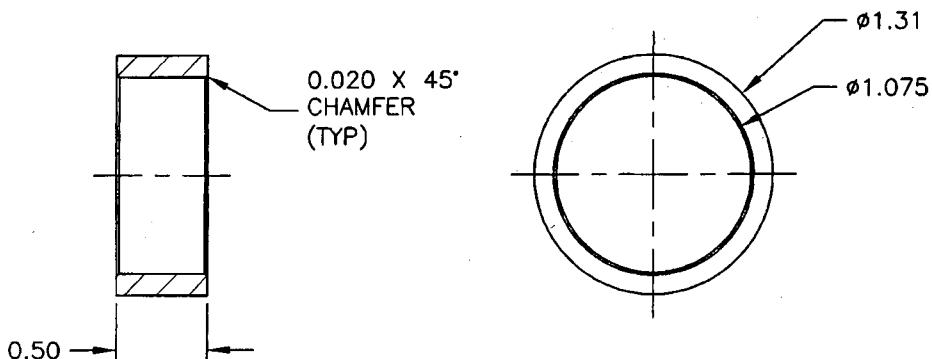
**RELEASED**  
**(07.12.07)****△ D3330-9 TOP PLATE****△ D3330-15 HANDLE****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A1008, 0.375 STEEL  
(REF. DART SPEC. M1010-B0.375x3.500)
- 2) MATERIAL: AISI 1018-1025 ROUND BAR PER MIL-S-7097  
(REF. DART SPEC. M1018-R0.375)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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WORKSHOP  
NO. *43160*

**DART**

DESIGN <i>B</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>M</i>	APPROVED <i>MP</i>	DRAWING NO. D3330	REV. D SHEET 8 OF 9
DATE 07.12.06		TITLE FRAME WELDMENT	SCALE 1:1

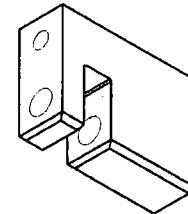
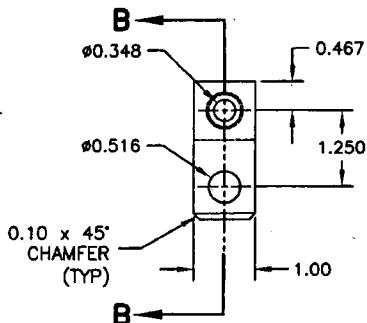
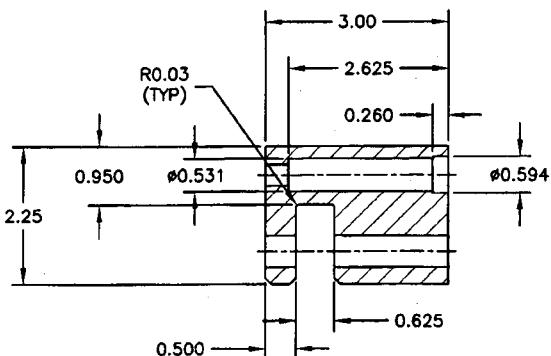
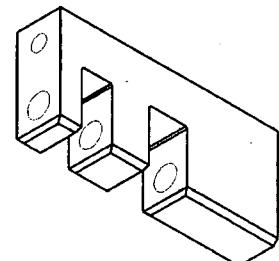
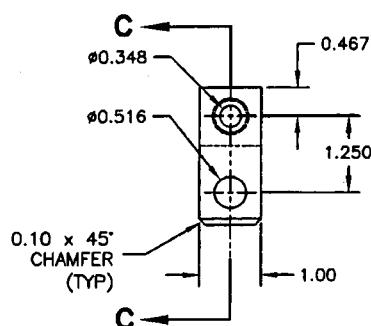
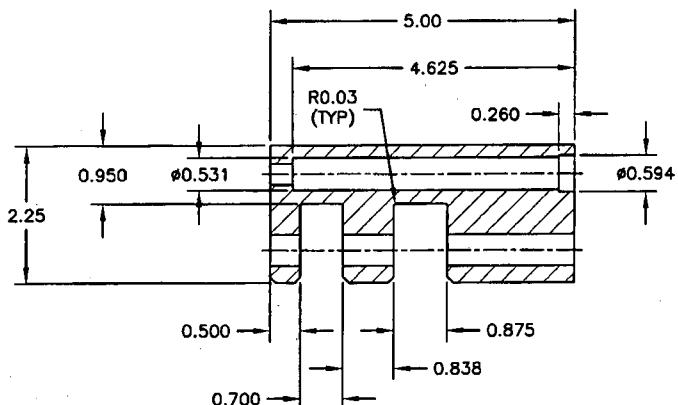
**RELEASED**  
*07.12.07 MFD*SECTION A-AD3330-17 HANDLE SOCKETD3330-19 HANDLE RIMNOTES:

- 1) MATERIAL: 1010-1025 ROUND BAR STEEL PER MILL-S-7097  
(REF. DART SPEC. M1025TR)
- 2) TOLERANCES ARE PER DART QSI .018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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WORK  
NO. *43166*

**DART**

DESIGN <i>lh</i>	DRAWN BY <i>DC</i>	DART AEROSPACE LTD HAWKSBURY, ONTARIO, CANADA	
CHECKED <i>W</i>	APPROVED <i>W</i>	DRAWING NO. D3330	REV. D SHEET 9 OF 9
DATE 07.12.06	TITLE FRAME WELDMENT	SCALE 1:3	

**SECTION B-B****D3330-13 SHORT PIN BRACKET****SECTION C-C****D3330-11 LONG PIN BRACKET****NOTES:**

- 1) MATERIAL: AISI 1010-1025 OR ASTM A36/A366/A569/A570, 1.000 (REF. DART SPEC. M1010-B1.000x02.250)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.010

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NO. *43160*